

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

SINGULAR COMPUTING LLC,

Plaintiff,

v.

GOOGLE LLC,

Defendant.

Civil Action No. 1:19-cv-12551-FDS

**MEMORANDUM IN SUPPORT OF SINGULAR’S MOTION TO COMPEL 30(B)(6)
TESTIMONY BY GOOGLE AND FOR EXPEDITED BRIEFING THEREON**

Plaintiff, Singular Computing LLC (“Plaintiff” or “Singular”), respectfully moves the Court for an order compelling Defendant, Google LLC (“Defendant” or “Google”) to produce a 30(b)(6) witness to testify as to the noticed scope of Singular’s damages topics. Over the past year, Google has pulled out every stop to avoid producing witnesses for deposition. By its latest effort, Google would unilaterally limit the scope of damages-related testimony by its 30(b)(6) representative(s), so as to avoid Singular’s discovering the considerable financial and technological benefits Google has reaped by using the Accused Products (including Singular’s patented technology) in nearly every one of Google’s products and services. Yet Google’s insisted upon limits are wholly at odds with established law concerning the scope of damages-related discovery in patent infringement actions, particularly under the *Georgia-Pacific* factors. Google should not be permitted to pigeonhole Singular’s damages case into unduly narrow confines that entirely disregard well-established law. For these reasons, detailed below, Singular now respectfully moves the Court for an order compelling Google to produce a 30(b)(6) representative to testify as to the complete scope of Singular’s deposition topics.

Additionally, in light of the impending July 23, 2021 deadline to complete fact discovery, Singular further requests that the Court enter an Order for expedited briefing on this motion, with Google's response in opposition to be filed no later than June 21, 2021, and Singular's reply, if any, to be filed no later than June 24, 2021. Singular submits that this expedited schedule is necessary to allow the deposition to take place in a timely fashion and to permit any follow-up discovery, to the extent necessary, within the remaining period for fact discovery.

I. Factual Background

The 30(b)(6) topics for which Google has refused, or refused in part, to produce a corporate representative to testify, cover a variety of financial and damages-related information. Yet the common thread running through all of Google's refusals is this: Google will not produce a witness to testify about anything other than the matrix multiplier unit of the accused Tensor Processing Unit Boards ("TPU boards") versions 2 and 3 ("v2" & "v3"). This is despite the considerable financial and technological benefits that Google derives from its infringement of Singular's technology—not only by its admitted use of the Accused Products in connection with nearly every product and service offered by Google, but by the savings it has realized by using Singular's technology instead of other, non-infringing, computer architectures for machine learning ("ML") in its data centers.

Google has admitted that it uses the Accused TPU v2 and v3 boards for at least the following Google products and services: Ads, Search, YouTube, Google News, Play Store, Photos, Image Search, Lens, Docs, Gmail, Translate, Maps, Assistant, Speech, Colab, and Kaggle. See Declaration of Kevin Gannon ("Gannon Decl."), Ex. A. Google has also publicly credited its use of its TPU boards for sparing it from having to at least double its already

substantial data center footprint to keep up with the accelerating growth of its ML products and services.¹

Owing to Google's extensive use of the Accused Products in its own products and services, Singular has noticed Google's 30(b)(6) deposition for, *inter alia*, the following damages-related topics:²

REQUEST NO. 10

Revenues, costs and/or expenses, and profits for any products or services (including the Accused Services) making use of the Accused Products.

REQUEST NO. 12

Projections for sales, use or cost savings for any products or services (including the Accused Services) making use of the Accused Products.

REQUEST NO. 13

Development profit and loss statements for any products or services (including the Accused Services) making use of the Accused Products.

REQUEST NO. 17

Internal or market studies prepared by (or for) Google concerning the importance or benefits of the Accused Services, including any features or components thereof.

REQUEST NO. 18

Profit and loss (P&L) statements of any product group or business segment(s) responsible (or formerly responsible) for the Accused Services.

REQUEST NO. 20

Capital asset requests and analyses associated with developing Google's data centers without the Accused Products.

REQUEST NO. 21

¹ Although Google made the statements in question at the time of the release of TPU v1 (which is not accused), it is almost certain that Google's training of neural networks using TPU v2 and v3 boards, versus alternative architectures (e.g., FPGAs, GPUs), have allowed Google to save billions of dollars in avoided data center construction, maintenance, and operational costs. Google uses the TPU v2 and v3 boards (the accused products) for neural net training, which represents approximately 2/3 of machine learning workloads; TPU v1 is not used for neural net training, but rather for inference, which accounts for just 1/3 of machine learning workloads.

² The 30(b)(6) topics have been modified from the noticed topics to reflect the scope of the parties' current dispute.

Google's long-term capital investment plans relating to its data centers.

REQUEST NO. 22

Projections of Google's long-term data center needs and shortfalls.

REQUEST NO. 23

Capital asset requests and analyses associated with developing Google's data centers with the Accused Products.

REQUEST NO. 24

Operating budgets and plans for Google data centers operating with and without the Accused Products, including without limitation size and energy requirements.

REQUEST NO. 25

Financial analyses prepared by Google related to the actual operation of its data centers with and without the Accused Products.

REQUEST NO. 29

Budgets and forecasts relating to the development and operation of Google's Cloud Platform and Cloud AI products.

REQUEST NO. 30

Google's projected or actual revenues, costs and profits from the operation of Cloud Platform, Cloud AI, or any other Google service or business that makes use of the Accused Products.

REQUEST NO. 32

Quantifications, evaluations and estimates of the value to Google of the benefits of using the Accused Products, including, but not limited to, improved search results, advertising placement, increases in volume of search and advertising, increased revenues, profits, advertising rates, and/or click-through rates.

REQUEST NO. 36

As of 2017, the average cost to build and maintain a data center.

REQUEST NO. 37

As of 2017, Google's corporate return on investment (ROI) policy.

Despite Singular's requests for 30(b)(6) testimony from Google as to the above topics, Google has nonetheless refused to produce a witness to testify as to either: (a) the value that the Accused Products—and in particular, the TPU v2 and v3 boards that use Singular's patented

technology—have added to myriad Google products and services; or (b) the costs savings that the TPU v2 and v3 boards that include Singular’s technology have enabled Google to realize in respect of its data center footprint, in terms of construction operation, and maintenance costs—issues that would undoubtedly have been front and center in a hypothetical negotiation between the parties at the time of Google’s first infringement in 2017.

This position clearly contravenes the intent of the Rules:

[I]t is totally improper for a party to decide on its own not to permit discovery... The Rule is explicit, viz., “*the court*” may “limit” the “frequency or extent of use of ... discovery methods permitted under [the] rules ...”. There is nothing which permits a party to do so unilaterally.

New England Carpenters Health Benefits Fund v. First DataBank, Inc., 242 F.R.D. 164, 165 (D. Mass. 2007).

Google unilateral limitation on the scope of discovery in this matter should not be rewarded. Accordingly, for the reasons set forth below, Plaintiff respectfully requests that this Court grant Plaintiff’s Motion to Compel production of a Rule 30(b)(6) deponent. *Id.* (“What is not proper practice is to refuse to comply with the [Rule 30(b)(6)] notice, put the burden on the party noticing the deposition to file a motion to compel, and then seek to justify non-compliance in opposition to the motion to compel.”)

II. Legal Standards

The party requesting discovery may move to compel the disclosure of any materials requested so long as such discovery is relevant and otherwise discoverable. *See Fed. R. Civ. P.* 37. The moving party bears the initial burden of showing that the materials and information sought are relevant to the action. *Controlled Kinematics, Inc. v. Novanta Corp.*, No. 17-cv-11029, 2019 WL 3082354, at * 2 (D. Mass. Jul. 15, 2019). “Once a showing of relevance is made, the party opposing disclosure bears the burden of showing that the requested discovery is

improper.” *Id.* “The scope of discovery is very broad, and ‘information is discoverable if there is any possibility it might be relevant to the subject matter of the action,’ even if it ‘is not directly related to the subject of the underlying litigation.’” *Gulbankian v. MW Mfrs., Inc.*, No. CIV.A. 10-10392-RWZ, 2013 WL 2146868, at *1 (D. Mass. May 15, 2013) (internal citations omitted).

The Federal Circuit “has sanctioned the use of the *Georgia-Pacific* factors to frame [a] reasonable royalty inquiry,” finding “[t]hose factors properly tie the reasonable royalty calculation to the facts of the hypothetical negotiation at issue.” *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1317 (Fed. Cir. 2011).

In relevant part, the *Georgia-Pacific* factors include the following:

(6) The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales.

[...]

- (9) The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.
- (10) The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.
- (11) The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.
- (12) The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions
- (13) The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.

Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D. N.Y. 1970), *judgment modified*, 446 F.2d 295 (2d Cir. 1971).

III. ARGUMENT

Google admittedly makes extensive use of the Accused Products (TPU v2 and TPU v3 boards), in Google Ads, Search, YouTube, Google News, Play Store, Photos, Image Search, Lens, Docs, Gmail, Translate, Maps, Assistant, Speech, Colab, and Kaggle. Singular's requests for a 30(b)(6) deponent from Google are narrowly tailored to discover the value of the Accused Products to those Google products and services.

Accordingly, Singular Request Nos. 10, 12-13 seek testimony regarding the revenues, costs, expenses, profits; development profits and losses; and any projections for sales, use, or cost savings for the above Google services and products, which, Google admits, each makes use of the Accused Products. Similarly, Request Nos. 17 and 18 would have Google testify as to any studies concerning the importance of these Google products and services, including the importance of any specific components thereof that may benefit from the Accused Products; and the profitability of any Google business segment(s) responsible for these Google products and services. Likewise, Request Nos. 29-30 and 32 concern operating profits (actual and projected) for these same Google products and services, as well as any quantifications or estimates of the Accused Products' value to Google in delivering those Google products and services. Request No. 37 concerns Google's corporate return on investment policy.

Discovery of these topics (10, 12-13, 17-18, 29-30, 32 and 37) will allow Singular, and its damages expert, to ascertain to what extent Google's use of Singular's patented technology has: (a) promoted the sale of any other Google product or service (e.g., Ads, Search, YouTube) [*Georgia-Pacific* factor 6]; (b) enhanced the utility of and competitive advantage of any Google product or service over any pre-infringement iteration(s), or over similar offerings from Google's competitors [*Georgia-Pacific* factor 9]; and (c) conferred upon Google profits attributable to Singular's patented technology [*Georgia-Pacific* factor 11].

Despite the clear relevance of Request Nos. 10, 12-13, 17-18, 29-30, 32 and 37 to a reasonable royalty analysis under *Georgia-Pacific*, Google has nonetheless refused to produce a witness, except to the extent that Singular's inquiry is limited to the Accused Products.

According to Google, any profits it might realize from goods and services that use the Accused Products are irrelevant, simply because those profits may be reflected in financial statements concerning other (non-accused) Google products or services. Thus, according to Google, although its Ads or YouTube products might reap considerably greater profits thanks directly to the Accused Products covered by Singular's patents, Google could simply disregard this consideration at an arms-length negotiation with Singular.

Google's only purported justification for refusing to produce a witness on Topics 10, 12-13, 17-18, 29-30, 32, and 37 insofar as they concern Google products and services that make use of the Accused Products, is that any discovery into profits associated with these Google products and services, even where those profits may be directly attributed to the use of Singular's patents, would violate the Entire Market Value Rule and the requirement to apportion a royalty base down to the Smallest Salable Patent Practicing Unit ("SSPPU").

This argument is misguided for at least two reasons: first, the Entire Market Value Rule is not a limitation on discovery, and it especially should not operate as one where the noticed deposition topics are so clearly tied to specific *Georgia-Pacific* factors, as above. Second, contrary to Google's apparent assumption, a reasonable royalty analysis may properly consider profits, cost-savings and other financial information as they relate to an accused infringer's non-accused products that include and directly benefit from the patented technology. Indeed, in calculating a reasonable royalty for patent infringement, a patentee may consider, for example, the accused infringer's "cost savings by use of the infringing product." *See Prism Technologies*

LLC v. Sprint Spectrum L.P., 849 F.3d 1360, 1375-77 (Fed. Cir. 2017) (“Reliance upon estimated cost savings from use of the infringing product is a well-settled method of determining a reasonable royalty.”)

Indeed, the Federal Circuit ruling in *Prism Techs.* is particularly relevant as it concerns the second broad category of damages-related information for which Google has refused to produce a 30(b)(6) deponent—Google’s data center costs, and more importantly, its cost-savings attributable to its infringement of Singular’s patents. As ‘reliance upon estimated cost savings from use of the [Accused Products, i.e., TPU v2, v3 boards], is a well-settled method of determining a reasonable royalty,’ Google can offer no viable argument that it need not produce a witness to testify as to Request Nos. 20-25 and 36 of Singular’s 30(b)(6) notice, as these topics specifically concern the effect of Singular’s technology on Google’s data center costs.

These data center related topics include: (a) capital asset requests and analyses associated with developing Google’s data centers with and without the Accused Products (Request Nos. 20 & 23); (b) “Google’s long-term capital investment plans relating to its data centers” (Request No. 21); (c) “[p]rojections of Google’s long-term data center needs and shortfalls” (Request No. 22); “[o]perating budgets and plans for Google data centers operating with and without the Accused Products, including without limitation size and energy requirements” (Request No. 24); “financial analyses prepared by Google related to the actual operation of its data centers with and without the Accused Products” (Request No. 25)³; and “[t]he average cost, as of 2017, to build a data center” (Request No. 36).

³ Google has represented to Singular that Profit and Loss Statements do not exist for its data centers. In light of Google’s representations, and whereas the noticed Request No. 25 originally included “profit and loss statements prepared by Google related to the actual operation of its data centers with and without the Accused Products,” Singular has restricted this motion to “other financial analyses prepared by Google related to the actual operation of its data centers with and without the Accused Products.”

Each of Request Nos. 20-25 and 36 is plainly relevant to several *Georgia-Pacific* factors, including “the utility and advantages of the patent property over the old modes or devices used for working out similar results” (factor 9); “the benefits [of the patented invention] to those who have used the invention” (factor 10); “the extent to which the infringer has made use of the invention; and any evidence probative of the value of that use” (factor 11); and “the portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements [...] business risks, or significant features or improvements added by the infringer” (factor 13).

Accordingly, as is the case for Request Nos. 10, 12-13, 17-18, 29-30, 32 and 37, Google has no excuse for refusing to produce a 30(b)(6) witness for Request Nos. 20-25 and 36, having refused, Google should now be compelled to do so.

Dated: June 14, 2021

Respectfully submitted,

/s/ Paul J. Hayes

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ATTORNEYS FOR THE PLAINTIFF

CERTIFICATE OF SERVICE

I certify that all counsel of record who have consented to electronic service are being served with a copy of this document via the Court’s CM/ECF system.

/s/ Paul J. Hayes

LOCAL RULE 7.1(a)(2) CERTIFICATION

I, Paul Hayes, counsel for Plaintiff, hereby certify that counsel met and conferred with counsel for Defendant, Google LLC, in a good-faith attempt to resolve or narrow the issues raised by this motion. The parties met and conferred by telephone on May 14, 2021, during which counsel for Google indicated that it intended to produce a corporate witness to testify on damages topics with respect to the Accused Products only, and that it would not produce a corporate representative to testify on damages topics as to any other Google product or service (or with respect to its data centers) that includes and/or uses the Accused Products. This position was consistent with Google's objections and responses to Singular's May 12, 2021 notice of 30(b)(6) deposition. Ex. B to Gannon Decl. While Singular's counsel attempted to meet and confer in good faith regarding its request for expedited briefing, Google counsel was unavailable to do so prior to Singular's filing this motion.

/s/ Paul Hayes

LOCAL RULE 37.1(b) CERTIFICATION

I, Paul Hayes, counsel for Plaintiff, hereby certify that Plaintiff's counsel has complied with the provisions of Rule 37.1(b).

/s/ Paul Hayes